Inquiry into the effectiveness of Airservices Australia's management of aircraft noise

Submission to the Senate Standing Committee on Rural and Regional Affairs and Transport

Sydney Airport Corporation Limited

JANUARY 2010

Contents

Summary

This submission draws upon Sydney Airport's long and successful experience in working with Airservices Australia across a wide range of aviation and airport-related issues. Many of these issues have been highly technical in nature. However, a number have also involved close and extensive interaction with representatives and members of the local community. This has especially been the case concerning the management of aircraft noise at and in areas around Sydney Airport.

In Sydney Airport's opinion, Airservices Australia's management of aircraft noise issues within its responsibilities for Sydney has been and continues to be highly professional and effective.

As outlined in this submission, Sydney Airport Corporation Limited (SACL) is a member of both the Sydney Airport Community Forum (SACF) and Airservices Australia's Implementation and Monitoring Committee (IMC) for the Long Term Operating Plan (LTOP) for Sydney Airport. Implementation of the LTOP is the principal mechanism by which aircraft noise is shared in areas around Sydney Airport. As such, SACL's representatives on SACF and the IMC have regularly attended meetings at which senior members of Airservices Australia attend and interact with numerous representatives of the local community and other key stakeholders. Having regard to paragraphs (a), (b) and (d) of the Committee's terms of reference, it has been SACL's consistent experience that:

- in carrying out its responsibilities, Airservices Australia has been and continues to be highly efficient and responsive to the needs of its stakeholders;
- Airservices Australia has always engaged with SACF and the IMC in an open, informed and reasonable way; and
- the existence of SACF and the IMC helps to ensure Airservices Australia is accountable for the conduct of its noise management strategy (as outlined in the LTOP).

Airservices Australia has been responsible for delivering high quality presentations and other information concerning aircraft noise issues to both SACF and the IMC whenever it has been requested to do so by community members. For example, a detailed presentation on the implications of new aircraft navigation technologies and the potential of their introduction to improve noise sharing outcomes was recently made to SACF.

SACL has also worked closely and constructively with Airservices Australia concerning the Sydney Airport Runway Safety Project and, in particular, on the need to mitigate the impacts of temporary changes resulting from construction work on aircraft noise exposure around Sydney Airport. Airservices Australia is providing SACF with regular and detailed information concerning the temporary impact this project has had on the pattern of aircraft movements in areas around Sydney Airport.

Relevant to paragraph (e) of the Committee's terms of reference, SACL's experience has been that, by implementing the LTOP and by consistently adhering to the LTOP's principles, Airservices Australia has pursued and established equitable noise-sharing arrangements in meeting its responsibilities to provide air traffic services.

Background

Terms of Reference

On 25 November 2009, the Senate referred the following matter to the Senate Standing Committee on Rural and Regional Affairs and Transport for inquiry and report:

> *An assessment of the effectiveness of Airservices Australia's management of aircraft noise under its responsibilities to provide air traffic services and protect the environment from the effects associated with the operation of aircraft for which it has legislative jurisdiction.*
>
> *In undertaking this inquiry, the committee shall consider whether Airservices Australia:*
>
> *(a) has conducted an effective, open and informed public consultation strategy with communities affected by aircraft noise;*
>
> *(b) engages with industry and business stakeholders in an open, informed and reasonable way;*
>
> *(c) has adequate triggers for public consultation under legislation and whether procedures used by Airservices Australia are compliant with these requirements;*
>
> *(d) is accountable, as a government-owned corporation, for the conduct of its noise management strategy;*
>
> *(e) has pursued and established equitable noise-sharing arrangements in meeting its responsibilities to provide air traffic services and to protect the environment from the effects associated with aircraft for which it is responsible;*
>
> *(f) requires a binding Community Consultation Charter to assist it in consulting fully and openly with communities affected by aircraft noise; and*
>
> *(g) any other related matter.*

Sydney Airport Corporation Limited's roles and responsibilities

Under the *Airports Act 1996* (the Act), Sydney Airport Corporation Limited (SACL) is the airport-lessee company for Sydney Airport. SACL's general roles and responsibilities at Sydney Airport are to:

- manage Sydney Airport operations as a whole, and ensure the effective delivery and coordination of airport-related services and facilities. SACL operates the International Terminal (T1) and the Multi-user Domestic Terminal (T2) as well as the associated gates, departure and holding lounges, aerobridges, car parks, baggage handling and other passenger facilities. The Qantas Domestic Terminal (T3) at Sydney Airport is operated by Qantas.

- provide and maintain all necessary on-airfield infrastructure such as runways, taxiways, aprons, aircraft parking bays, airside lighting, airfield visual aids and ensure Sydney Airport complies with all necessary aviation safety standards.

- manage certain aviation security arrangements, including passenger and checked baggage screening, security patrols and surveillance, physical security and electronic access control systems, and security quality control and coordination.

- manage road traffic within the international and domestic terminal precincts in close cooperation with surrounding roads (which are managed by the RTA) and provide on-airport car parking.

- coordinate initial response to airport incidents and emergencies.

The Act also requires SACL to prepare a master plan for Sydney Airport, in consultation with the community and other key stakeholders. In part, the purposes of a master plan are:

- to establish the strategic direction for efficient and economic development at the airport over a 20 year period;

- to indicate to the public the intended uses of the airport site; and

- to reduce potential conflicts between users of the airport site, and to ensure that uses of the airport are compatible with the areas surrounding the airport.

Following an extensive community and stakeholder consultation process, the Sydney Airport Master Plan 2009 was approved by the Minister for Infrastructure, Transport, Regional Development and Local Government on 19 June 2009. The planning period for the master plan covers the 20 year period 2009 to 2029.[1]

Aviation activity at Sydney Airport

Sydney Airport is Australia's major gateway to the world. Servicing 44 airlines and with 45% of all Australia's international airline passengers arriving in Sydney, it is also our nation's busiest airport. In 2009, Sydney Airport saw 33.0 million passengers pass through its terminals, accommodated just under 290,000 aircraft movements and handled 647,000 tonnes of air freight.[2]

Sydney Airport is busier than any train station in Sydney and handles more passengers than Central, Town Hall or Wynyard stations. Last year, the daily average usage was just over 90,000 passengers. In addition, there are 12,000 people who work at the airport on any given day and approximately 30,000 people who meet, greet or farewell passengers. This means that just over 132,000 people use Sydney Airport daily.

As outlined in the approved Master Plan 2009, this level of aviation activity is forecast to grow over the next 20 years. Specifically:

- passengers are forecast to grow by 4.2% per year to 78.9 million in 2029;

- aircraft movements are forecast to grow by 2% per year to 427,400 in 2029; and

- air freight is forecast to increase by 3.8% per year to 1,077,000 tonnes in 2029.[3]

---

[1] The Master Plan 2009 can be downloaded from http://www.sydneyairport.com.au/SACL/Master-Plan.html

[2] Note that other airports in the Sydney basin (Bankstown and Camden) contribute to the overall number of aircraft movements in the Sydney basin – see below for more detail.

[3] *Sydney Airport Master Plan 2009*, Chapter 5.

The economic significance of Sydney Airport

The significant and growing level of aviation activity at Sydney Airport underpins the airport's role as an employer and economic driver of state and national importance. Sydney Airport today makes a direct contribution of $8 billion to NSW Gross State Product. With flow–on impacts taken into account, the airport's economic contribution increases to $16.5 billion and is forecast to rise to more than $27 billion by 2015/16. This is equivalent to 6% of the NSW economy and 2% of the Australian economy. Around $7.4 billion is also contributed directly to household incomes every year – that is, more than $142 million is injected into family budgets each and every week.[4]

This substantial economic contribution translates into well paid jobs. It is estimated that Sydney Airport provides or generates more than 75,000 jobs directly and about 131,000 jobs indirectly, making a total of around 206,000 jobs. This year alone, it is estimated that these jobs will deliver around $286 million in payroll tax revenue to the NSW Government, or more than $1.2 billion over the next four years and considerably more over the next 20 years. As a result of this forecast growth in the airport's economic contribution, the total number of jobs provided or generated by Sydney Airport is expected to rise to more than 338,000 by 2015/16.

Aircraft noise

Roles and responsibilities

In any large city, there are many sources of noise, most of which are directly associated with urban living. Environmental noise (which is also called community noise) includes noise generated by road, rail and air traffic, as well as that generated by industries, construction activity and, more generally, across neighbourhoods. The main sources of environmental noise in Sydney are related to transportation, particularly road traffic (which is estimated to contribute around 73% of noise) followed by aircraft (which is estimated to contribute around 17% of noise) and rail (which is estimated to contribute around 6% of noise).[5] With respect to aircraft noise, it is important to note that, in addition to Sydney Airport, there are other airports in the Sydney basin that generate significant numbers of aircraft movements. For example, Bankstown Airport handled 363,000 aircraft movements and Camden Airport handled around 64,000 aircraft movements in 2008. The extent to which noise generated by these aircraft movements contributes to the abovementioned 17% of total environmental noise is not known.

Managing aircraft noise related impacts at and in areas around airports is not the sole concern of any one organisation. Rather, managing aircraft noise impacts at Australian airports is the shared concern of many organisations, including the International Civil Aviation Organisation, regulatory and other agencies of the Australian and State Governments, the airports themselves, local councils in the vicinity of the airport, airlines using the airport and aircraft manufacturers. While each has a differing responsibility, collectively, they play a crucial role in effectively managing and, more importantly, minimising the impacts on communities affected by aircraft noise. The National Aviation Policy White Paper states that:

> *Australian airports currently have very little direct involvement in managing aircraft noise or decisions relating to the land use and development of noise sensitive buildings around the airport and under flight paths. Airports do have a broad scope of influence and it is in their best interests to work with governments, local communities,*

[4] URS Australia Pty. Ltd., *The Economic Impact of Growth at Sydney Airport*, 2008.
[5] NSW State of the Environment Report 1993

aircraft operators, regulators and air navigation service providers to help develop practical solutions to minimise noise impacts on communities. The Government is looking to airport operators to work constructively in this area.[6]

For this reason, while the Committee's terms of reference focus exclusively on Airservices Australia's role in the management of aircraft noise-related issues, SACL believes that, to ensure such issues are comprehensively examined, the roles and responsibilities of other relevant organisations should at least be considered. As outlined in the Sydney Airport Master Plan 2009, the roles and responsibilities for managing aircraft noise-related issues at Australian airports are as follows:

Aircraft noise: Roles and responsibilities at Australian airports

Organisation	Summary of responsibilities concerning aircraft noise mitigation
International Civil Aviation Organisation and the Australian Government	• The International Civil Aviation Organisation (ICAO), a United Nations Specialised Agency, is the global forum for civil aviation. ICAO works to achieve its vision of safe, secure and sustainable development of civil aviation through cooperation amongst its member States, of which Australia is one. • Much of ICAO's effort to address aircraft noise over the past 30 years has been aimed at reducing noise at source. Aeroplanes and helicopters built today are required to meet the strict noise certification standards adopted by the Council of the ICAO. These are contained in Annex 16 — Environmental Protection, Volume I — Aircraft Noise to the Convention on International Civil Aviation.
Australian Government (Department of Infrastructure, Transport, Regional Development and Local Government)	• Enforces Sydney Airport's 80 aircraft movement per hour cap and jet curfew and the granting of curfew dispensations. • Administers the aircraft noise insulation program. • Provides support for the Sydney Airport Community Forum (SACF), the main consultative body for the Sydney Airport Long Term Operating Plan. SACF includes representatives from the community, local councils, the aviation industry (including SACL and airlines), and State and Federal Parliaments.
Australian Government (Airservices Australia)	• Provides air-traffic control management and related airside services to the aviation industry. • Determines aircraft flight paths into and out of Sydney Airport. • Implements aircraft noise sharing through the Long Term Operating Plan (LTOP) for Sydney Airport.

[6] National Aviation Policy White Paper (Australian Government), December 2009, p 209.

	• Convenes, chairs and services the Implementation and Monitoring Committee for the LTOP. • Regularly publishes data and information on actual aircraft movements (including WebTrak), runway and track usage and noise impacts using a range of alternative noise descriptors. • Handles aircraft noise inquiries and complaints. • Operates noise monitoring equipment in suburbs around Sydney Airport and regularly publishes results. • Reviews and endorses for technical accuracy the Australian Noise Exposure Forecasts developed by Sydney Airport.
Sydney Airport Corporation Limited (SACL)	• As the airport-lessee company for Sydney Airport (the airport land itself being owned by the Australian Government), SACL manages operations at Sydney Airport as a whole, and ensures the effective delivery and coordination of airport-related services and facilities. • Provides and maintains all necessary on-airport infrastructure – such as runways, taxiways, aprons, and aircraft parking stands – and ensures Sydney Airport complies with all necessary aviation safety standards. SACL also operates Terminal 1 (international) and Terminal 2 (domestic). Qantas operates Sydney Airport's Terminal 3 (domestic). SACL therefore ensures the continued availability of on-airport infrastructure to facilitate aircraft noise sharing At Sydney Airport, this includes ensuring the long-term availability of the east-west runway for noise-sharing purposes and support for the introduction of the new generation quieter aircraft such as the A380, B787 and A350XWB. • As discussed above, publishes as part of its Master Plan an Australian Noise Exposure Forecast, other noise descriptors and plans to manage aircraft noise impacts. • Ensures guidelines are in place to control noise generated by engine ground running. • Engages with stakeholders as a SACF member. • Member of Airservices Australia's Implementation and Monitoring Committee for the LTOP for Sydney Airport.
Airport Coordination Australia (ACA)	• The ACA is an independent company that manages the coordination and allocation of slots at Sydney Airport. ACA allocates planning slots at the Airport in accordance with the *Sydney Airport Demand Management Act 1997* and the Slot Management Scheme approved by then Minister for Transport and Regional Services in 1998. All fixed wing commercial and private aircraft require a slot to land or take-off from Sydney Airport (military and emergency operations and helicopter movements are exempt).

Airlines	• Sydney Airport services 44 international, domestic and regional airlines. All have modern aircraft fleets that meet the required ICAO and Australian Government noise-related standards and regulations. • Many airlines using Sydney Airport have placed orders for the new generation of quieter, cleaner and more fuel efficient aircraft such as the A380, B787 and A350XWB. These are expected to be operating at Sydney Airport within the planning period. For example, the Qantas Group anticipates operating 20 A380s and up to 115 B787s in its fleet. • In recent years, newer aircraft are being acquired such as the B737-800 (operated by Qantas and Virgin Blue) and the A320 (operated by Jetstar) which are much quieter than the older noisier aircraft they are replacing.
NSW Government and Local Government Authorities	• The NSW Government and Local Government Authorities regulate land use planning and development in the vicinity of Sydney Airport. • The NSW Government has issued a ministerial direction to local councils under section 117(2) of the *Environmental Planning and Assessment Act 1979* to guide land use planning and development decisions near airports, including Sydney Airport. The direction aims, in part, to ensure that development for residential purposes or human occupation, if situated on land within the ANEF contours of between 20 and 25, incorporates appropriate building features so that the development is not adversely affected by aircraft noise.

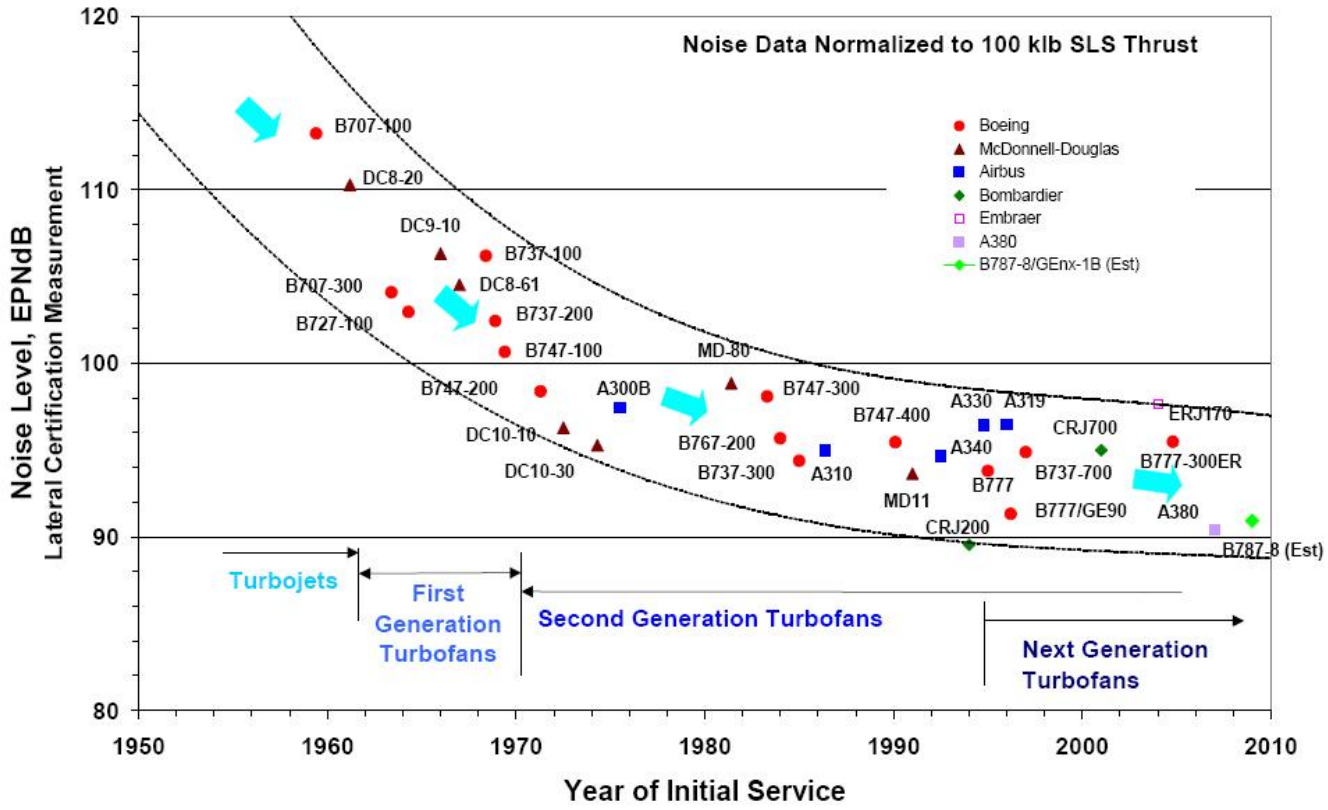
SACL is committed to working collaboratively with Airservices Australia and other key stakeholders in effectively managing and minimising the impacts of aircraft noise, especially in communities in the vicinity of Sydney Airport or those under flight paths leading to or from the airport.

New technology: aircraft are getting quieter

The ICAO has developed standards and guidelines relating to civil aviation operations, including in relation to aircraft noise. As Australia is a member of the ICAO, airports in Australia and the aircraft permitted to operate at those airports are affected by these standards, regulations and guidelines which are reflected in various Australian Government laws such as the *Air Navigation (Aircraft Noise) Regulations 1984*. Over time, these regulations, in terms of the types of aircraft able to be operated in Australia, have become stricter as aviation technology (including airframe, jet engine and air navigation technologies) have improved.

Aviation technology has therefore played an important role in reducing aircraft noise impacts around airports and will continue to do so. Only aircraft meeting the most stringent noise requirements are permitted to operate at Sydney Airport on a regular basis. These requirements are known as the Chapter 4 noise standard, applicable from 1 January 2006 for new aircraft and to Chapter 3 aircraft for which re-certification to Chapter 4 is requested.

In 1963, when the Sydney Airport curfew was introduced, the most common passenger jet aircraft was the Boeing 707 which had extremely noisy jet engines. The Boeing 727 aircraft that were in wide use until relatively recently were not much better. As a result of much improved technology, today's aircraft are much quieter, as will the aircraft of the future. This is illustrated in the following diagram.



In particular, the more recent technologies being used across all sectors of the aviation industry will reduce noise impacts in communities around airports. This is especially true for the new quieter, cleaner and more fuel efficient aircraft such as the A380. As well as being a quieter aircraft, the A380 is larger. It can carry more passengers than other aircraft, meaning that fewer of these quieter A380 flights are required to transport the same number of passengers. Airservices Australia has released a report showing that the Airbus A380 operating from Sydney Airport is more than six decibels quieter on departure than Boeing's 747-400.[7] The report also indicates that "a three decibel reduction is regarded as a halving of an aircraft's noise energy."

The B787 is still under development, though test flights of the aircraft have recently commenced. Boeing claims that its noise footprint will be 60% smaller than that of today's similarly sized aircraft. Airbus claims the A350XWB will be a faster, more efficient and quieter aircraft as a result of its advanced wing design – which combines aerodynamic enhancements already validated on the A380 with further improvements developed by its engineers.

To facilitate the introduction of these new generation quieter aircraft, in particular the Airbus A380, at Sydney Airport, SACL has invested $128 million to upgrade infrastructure.

[7] Airservices Australia, Noise Monitoring Report: A380 v 747-400

Describing aircraft noise impacts

Aircraft noise impacts in areas around airports can be described in many ways. The tools used to illustrate these impacts are known as 'noise descriptors'. As part of the community consultation process that was undertaken during the preparation of the Master Plan 2009, SACL was particularly mindful of the need to provide the community and other stakeholders with accurate and meaningful information on aircraft noise impacts in a form that could be easily understood. Having regard to this, the number of noise descriptors published by SACL during the master plan community consultation process – and which now form part of the approved Master Plan 2009 – was therefore well in excess of those required under the *Airports Act 1996*. One of these – the Australian Noise Exposure Forecast – is required under the Act to be endorsed by Airservices Australia.

Airservices Australia has also launched a new and innovative system known as WebTrak to provide the community with information on where and how high aircraft fly, as well as the noise levels of specific aircraft operations. This allows members of the public access to detailed information on aircraft operations around Sydney Airport on a daily basis. SACL commends the Australian Government and Airservices Australia for implementing this important community information initiative.